

ABSTRACT

A fluid-operated valve comprises a first valve chamber (16) and a second valve chamber (25) communicating with each other through a through-hole (21), a first cylinder chamber (39) formed adjacent to the first valve chamber (16) and accommodating a first piston (6) so as to be slidable therein, a valve body (3) positioned in the second valve chamber (25) and adapted to come into contact with or move away from a valve seat (22) around the through-hole (21), a valve stem (4) having one end connected to the first piston (6) and the other end connected to the valve body (3), and an annular diaphragm (8) having an inner peripheral portion fixed to the valve stem (4) and an outer peripheral portion fixed to the inner peripheral surface of the first valve chamber (16). The first piston (6) is urged by a spring (9) to bring the valve body (3) into contact with the valve seat (22). The first piston (6) is moved by supplying the working fluid into the first cylinder chamber (39) through the working fluid supply port of a first cylinder (5) to move the valve body (3) away from the valve seat (22).